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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/890,926      | 08/07/2001  | Shinji Tanaka        | 1265-01             | 1861             |

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EXAMINER

GILLIAM, BARBARA LEE

ART UNIT PAPER NUMBER

1752

DATE MAILED: 12/13/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

PL 3

|                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|                              | 09/890,926             | TANAKA ET AL.       |  |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|                              | Barbara Gilliam        | 1752                |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on application filed 8/7/01.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 6-9 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 is/are allowed.
- 6) ☒ Claim(s) 1 and 10 is/are rejected.
- 7) ☒ Claim(s) 2-9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |                                                                                              |                                                                             |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-11 are pending.

#### ***Claim Objections***

2. Claims 6-9 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 6-9 have not been further treated on the merits.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 10 is rejected under 35 U.S.C. 102(b) as being anticipated by Damme et al.
  - a. In US Patent No. 5,922,502, Damme et al teach an imaging element for making a lithographic printing plate comprising on a support having a hydrophilic surface, a photosensitive layer and a thermosensitive layer. The thermosensitive layer is opaque to light for which the photosensitive layer has spectral sensitivity and is capable of being rendered transparent upon exposure to laser light (claim 1). The imaging element is image-wise exposed by means of a laser thereby image-wise rendering the thermosensitive layer transparent to light for which the photosensitive layer has spectral sensitivity, overall exposing the imaging element with light for which the photosensitive

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light has a spectral sensitivity and developing the imaging element (claim 11). The thermosensitive layer meets the present limitations for the photocoloring layer and the photosensitive layer meets the present limitations for the photosensitive layer.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Igarashi et al.

a. In US Patent No. 5,168,029, Igarashi et al teach a multicolor recording material comprising a support and at least two layers each containing a leuco dye which is capable of forming a color by oxidation and a photo-oxidizing agent, wherein the leuco dyes contained in each layer are capable of forming different color form each other and the photo-oxidizing agents contained in each layer respond to light having different wavelength form each other (abstract). For example, the multicolor recording material, which can form red color by exposure with the light having a wavelength of from 380 to 500 nm, and can form black color by exposure with the light having wavelength of 380 nm or below (column 3, lines 6-31). A multicolor image may also be obtained by providing on a support at least two layers each containing heat-responsive microcapsules containing a photo-oxidizing agent and a leuco dye (column 3, lines 55-

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64 & column 4, lines 43-57). In the case of using microcapsules, wall forming agents such as gelatin, polyurea, polyimides, polyesters, polycarbonates, melamine etc may be used (column 6, lines 35-41). The first layer comprising microcapsules which can form red color by exposure to light having a wavelength of from 380 to 500 nm meets the limitations for the photocoloring layer since it is colored through exposure to light having a wavelength falling within the range of 450 to 1500 nm. This layer is then substantially UV-non-transmissive as required in the present application. The second microcapsule layer meets the present limitations for the photosensitive resin layer.

b. Therefore it would have been obvious to one of ordinary skill in the art to make a multicolor recording element comprising on a support at least two layers each containing a photo-oxidizing agent and a leuco dye encapsulated with a polyester with reasonable expectation of obtaining a multicolor recording material with a longer usable life since diazo compounds are not used in the element based on the teachings of Igarashi et al (column 7-11).

### ***Allowable Subject Matter***

7. Claims 2-5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

a. The leuco dye of Igarashi et al (US Patent No. 5,168,029) meets the present limitations for the thermal color former and the photo-oxidizing agent meets

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the present limitations for the developer. However, there is no teaching or suggestion of a photothermal-transforming substance in either layer of Igarashi et al as required in the present application.

9. Claim 11 is allowed.

10. The following is an examiner's statement of reasons for allowance:

a. The photocoloring layer of present claim 11 is colored upon exposure to light having a wavelength of 450 to 1500 nm. The thermosensitive layer of Damme et al (US Patent No. 5,922,502) is similar to the photocoloring layer of the present application. The thermosensitive layer of Damme et al is rendered transparent upon exposure to laser light. In US Patent No. 5,759,742, West et al teach a masking element comprising a support, a photosensitive layer and masking layer containing an infrared absorbing compound and a thermally bleachable dye. The dye is bleached by imagewise laser irradiation, followed by floodwise exposure to produce an image in the photosensitive layer corresponding to the laser produced imaged (abstract). The thermally bleachable dye is a compound that undergoes an irreversible chromogenic change from color to colorless when heated by the absorbed laser energy (column 5, lines 16-27). Therefore the thermosensitive layer of Damme et al and the masking layer of West et al do not meet the present limitations for the photocoloring layer because color is lost in the exposed areas which is the opposite of what is required in present claim 11.

b. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. In US Patent Application Publication 2001/0038975, Daems et al teach a method for on-site preparation of a relief image.

b. In US Patent No. 6,479,217, Grinevich et al teach a method for producing selectively colorable printing plates.

c. In US Patent No. 6,413,700, Hallman et al teach a masked presensitized printing plate intermediates and method of imaging the same.

d. In US Patent No. 6,410,208, Teng teaches lithographic printing plates having a thermo-deactivatable photosensitive layer.

e. In US Patent No. 6,387,595, Teng teaches on-press developable lithographic printing plates having an ultrathin overcoat.

f. In US Patent No. 6,140,005, Van Damme et al teach an imaging element and a method for producing a lithographic plate therewith.

g. In US Patent No. 6,080,523, Vermeersch et al teach an imaging element for producing a lithographic plate therewith.

h. In US Patent No. 5,948,596, Zhong et al teach a digital printing plate comprising a thermal mask.

i. In US Patent No. 5,922,508, Zertani et al teach photopolymerizable recording material.

j. In US Patent No. 5,858,604, Takeda et al teach a presensitized lithographic printing plate and method for preparing lithographic printing plate.

k. In US Patent No. 5,698,373, Fujikawa et al teach a photosensitive relief printing plate and photosensitive intaglio printing plate.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara Gilliam whose telephone number is 703-305-1330. The examiner can normally be reached on Monday through Thursday.

a. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on 703-308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

b. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

*B. Gilliam*

B. Gilliam  
December 9, 2002

  
JANET BAXTER  
SUPERVISORY PATENT EXAMINER  
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